

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of remarks herewith.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-4, 8-10, 13, 14-16 and 19 are currently pending. Claims 1, 14-16 and 19 are independent. Claim 9 has been indicated as allowable.

Applicants respectfully traverse the objections to the Drawings. The shutter (2) of Figures 2, 3, 4 and 11 is the same shutter. Different compositions are used to illustrate alternative embodiments to the claimed invention.

Applicants respectfully request that the objection to the drawings be reconsidered and withdrawn.

II. REJECTIONS UNDER 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

Claim 1-3, 13-16 and 19 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 5,418,546 to Nakagakiuchi et al. (hereinafter, merely “Nakagakiuchi”).

Claim 4 was rejected under 35 U.S.C. §103(a) as allegedly obvious in view of Nakagakiuchi.

Claims 8 and 10 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable in view of Nakagakiuchi and U.S. Patent No. 5,517,242 to Yamada et al. (hereinafter, merely “Yamada”).

III. RESPONSE TO REJECTIONS

Claim 1 recites, *inter alia*:

"An image pick-up apparatus for picking up an image of object,
the image pickup apparatus comprising:

image pick-up means having a light receiving surface for receiving
light from the object to carry out photo-electric conversion, and
adapted to output pixel value obtained as the result of the photo-
electric conversion;

evaluating means for evaluating the pixel value; and

control means for controlling, in pixel units, exposure time with
respect to the light receiving surface on the basis of evaluation
result by the evaluating means." (emphasis added)

As understood by Applicants, Nakagakiuchi relates to a visual display system in which light from a light source is modulated by a spatial light modulator having a plurality of controllable elements arranged in a first dimension. The spatial light modulator varies the amount of light received from the lens and supplied to a photoelectric conversion device, thereby controlling the exposure of the image focused by the lens.

It is respectfully submitted that Nakagakiuchi does not provide the disclosure of claim 1. Column 12, lines 15-19 of Nakagakiuchi states, "...the SLM control unit 45 operates the controllable elements of the spatial light modulator 36 via a bus 46, to reduce the proportion of the image light guided to the second optical path 38."

The Examiner cites on page 2 of the Office Action, column 11, lines 51-54 of Nakagakiuchi which states "[t]he space light modulator 36 consists of the mirrors 50 arranged in a two-dimensional matrix array. The mirrors 50 can be controlled individually and simultaneously."

On page 3 of the Office Action, the Examiner cites column 13, lines 7-26 of Nakagakiuchi which states, "...resulting signal from the photoelectric conversion device 39 is delivered through the camera signal processing unit 41...inputted again to the CPU...it is determined whether there has been a rapid change in the signal value. A rapid change will mean a change from one image scene to the next...it is determined whether the signal value has dropped to the specified value with which the value stored in the memory 308 was compared. If not, the level conversion value is further varied...and the SLM control unit 45 is again actuated...if it is determined that the signal value has dropped to the specified value, the level conversion value is fixed to the current level...the SLM control unit is allowed to operate with the current level..."

Applicants respectfully disagree with the assertion that Nakagakiuchi provides the subject matter recited in claim 1.

Applicants respectfully submit that Nakagakiuchi fails to teach or suggest the features of claim 1. Specifically, Applicants submit that there is no teaching or suggestion of an image pick-up apparatus for picking up an image of object, the image pickup apparatus comprising image pick-up means having a light receiving surface for receiving light from the object to carry out photo-electric conversion, and adapted to output pixel value obtained as the result of the photo-electric conversion; evaluating means for evaluating the pixel value; and control means for controlling, in pixel units, exposure time with respect to the light receiving surface on the basis of evaluation result by the evaluating means, as recited in claim 1.

Indeed, Applicants submit that the SLM control unit which operates the controllable elements of the spatial light modulator via a bus where it is determined whether the

signal value has dropped to the specified value, therefore the level conversion value is further varied and the SLM control unit 45 is again actuated, and if it is determined that the signal value has dropped to the specified value, the level conversion value is fixed to the current level in which the SLM control unit is allowed to operate with the current level is completely different than and provides no suggestion of controlling, in pixel units, exposure time with respect to the light receiving surface on the basis of evaluation result by the evaluating means which evaluates the pixel value. Applicants submit that the control means controls exposure time with respect to the light receiving surface via a pixel value.

None of the other references cited by the Examiner teach the above defined subject matter of claim 1.

Therefore, Applicants respectfully submit that claim 1 is patentable.

For reasons similar to those described above with regard to independent claim 1, claims 14-16 and 19 are also believed to be patentable.

Therefore, Applicants submit that independent claims 1, 14-16 and 19 are patentable.

IV. DEPENDENT CLAIMS

The other claims are dependent from independent claim 1, discussed above, and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In the event the Examiner disagrees with any of the statements appearing above with respect to the disclosures in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate the portion, or portions, of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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